

Title (en)

Method and apparatus for agglomerating fine snow particles

Title (de)

Verfahren und Vorrichtung zum Agglomerieren von feinen Schneeteilchen

Title (fr)

Procédé et dispositif pour agglomérer de fines particules de neige

Publication

EP 1046614 B1 20060712 (EN)

Application

EP 00500072 A 20000418

Priority

US 29852699 A 19990423

Abstract (en)

[origin: EP1046614A1] The device forms snow from pressurized carbon dioxide fluids. A supply conduit delivers a flow of pressurized fluid. An expansion member attached to the supply conduit contains a plurality of channels for reducing pressure on the fluid and converting the fluid with reduced pressure into a mixed-phase stream of gas and fine snow particles. The channels have an average diameter and an average length of at least twice its average diameter. An agglomeration chamber attached to the plurality of channels agglomerates the fine snow particles by contacting the fine snow particles together. <IMAGE>

[origin: EP1046614A1] A device for forming snow from pressurized fluids comprises a supply conduit for delivering a flow of pressurized fluid, an expansion member containing several channels which is attached to the conduit, and an agglomeration chamber attached to several channels. A device for forming snow from pressurized fluids comprises a supply conduit (12), an expansion member (b), and an agglomeration chamber (c). (12) delivers a flow of pressurized fluid. (b) contains several channels which reduces pressure on the gas and converts the fluid with reduced pressure into a mixed-phase stream of gas and fine snow particles. The channels have an average diameter and length of at least twice its average diameter. (c) is attached to several channels for agglomerating the fine snow particles by contacting the particles together. An independent claim is also included for producing large snowflakes from pressurized fluid comprises sending the fluid to a low pressure chamber through channels to create a mixture of fine snow particles and gas and agglomerating the fine snow particles into the snowflakes.

IPC 8 full level

C01B 31/22 (2006.01); **C01B 32/55** (2017.01); **F25C 3/04** (2006.01)

CPC (source: EP KR US)

C01B 32/55 (2017.07 - EP US); **F25C 3/04** (2013.01 - EP KR US); **F25C 2303/044** (2013.01 - EP US)

Cited by

DE102004063473B4; EP4242559A3; DE102008059764A1; WO2014190022A1; WO2005102584A1

Designated contracting state (EPC)

ES IT

DOCDB simple family (publication)

EP 1046614 A1 20001025; **EP 1046614 B1 20060712**; AR 023547 A1 20020904; BR 0001666 A 20001031; CA 2306417 A1 20001023; CA 2306417 C 20040706; CN 100390054 C 20080528; CN 1273217 A 20001115; ES 2262497 T3 20061201; KR 100468305 B1 20050127; KR 20010014795 A 20010226; US 6151913 A 20001128

DOCDB simple family (application)

EP 00500072 A 20000418; AR P000101827 A 20000419; BR 0001666 A 20000420; CA 2306417 A 20000420; CN 00106936 A 20000421; ES 00500072 T 20000418; KR 20000021192 A 20000421; US 29852699 A 19990423